DeKalb County School District
Fernbank Science Center

Title:	GEOLOGY ACTIVITIES (4660)	**Type:**	Outreach
Level:	6th Grade	**Length:**	55 minutes
Location:	Local School	**Limit:**	1 class/period

Program Description

Choose from among two hands-on geology activities for students:

Option 1. Investigating Rocks
Option 2. The Grand Time Game

You may note a program preference when you register. Alternatively, the instructor will be in touch with you via e-mail to determine your preference.
If no preference is received, Investigating Minerals will be taught to classes in the first semester, and The Grand Time Game in second semester.

Please see the two following pages for descriptions of each program option.

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Title:	INVESTIGATING ROCKS (4660B)	**Type:**	Outreach
Level:	6th Grade	**Length:**	55 minutes
Location:	Local School	**Limit:**	I class/period

Program Description

Students work in pairs with rock specimens to learn the textures that will allow them to discriminate among different kinds of igneous, sedimentary and metamorphic rocks. Students will assess grain size, interlocking versus clastic, foliated versus non-foliated, and other textural criteria, and draw conclusions about the origin of the rocks in relation to the rock cycle.

Standards

S6E5 Students will investigate the scientific view of how the earth's surface is formed.
S6E5(b) Investigate the composition of rocks in terms of minerals.
S6E5(c) classify rocks by their process of formation
S6E5(d) describe processes that change rocks and the surface of the earth

Vocabulary

foliated	non-foliated	clastic	interlocking
igneous	metamorphic	sedimentary	intrusive
extrusive			

Pre-Visit Activities

Class should have discussed the different origins of igneous, metamorphic and sedimentary rocks (as illustrated in the rock cycle diagram in Holt Georgia Earth Science, p. 92-93) prior to the program, if possible.

Post-Visit Activity

4660 Activity: This activity addresses GPS S6CS5(b).

Resources

Holt Georgia Earth Science, Chapter 4, Rocks: Mineral Mixtures

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DeKalb County School District

Fernbank Science Center

Title:	THE GRAND TIME GAME (4660C)	**Type:**	Outreach
Level:	6th Grade	**Length:**	55 minutes
Location:	Local School	**Limit:**	1 class/period

Program Description

Students use a script that narrates events through geologic time, particularly in Georgia and Arizona. A tabletop model is used to show the layers revealed in the Grand Canyon laid down one at a time, then the canyon itself is excavated in stages. If time remains, students then learn a card game about fossils which reinforces the major divisions of geologic time and the means by which geologic time is determined.

Standards

S6E5(d) describe processes that change rocks and the surface of the earth
S6E5(e) recognize that lithospheric plates constantly move and cause major geological events on the earth's surface
S6E5(f) explain the effects of physical processes (plate tectonics, erosion, deposition, volcanic eruption, gravity) on geological features including oceans (composition, currents, and tides
S6E5(g) describe how fossils show evidence of the changing surface and climate of the Earth

Vocabulary

weathering	erosion	superposition	Paleozoic
Mesozoic	Cenozoic	Precambrian	uniformitarianism
time scale			

Pre-Visit Activities

Class should have discussed fossils and relative age of rocks , if possible.

Post-Visit Activity

4660 Activity: This activity addresses GPS S6CS5(b).
The Grand Time Game activities: These activities address GPS S6CS6(c). (see http://fsc.fernbank.edu/Geology/GEOWEB/GrandTimeGame/GrandTimeGame.html)

Resources

Holt Georgia Earth Science, Chapter 6

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